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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,872	01/21/2005	Gerhard D. Klassen	555255012438	1246

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PATENT GROUP 2N
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EXAMINER	
PATEL, HETUL B	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,872	KLASSEN ET AL.	
	Examiner	Art Unit	
	Hetul Patel	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,7-11,13-27 and 36-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,7-11,13-27 and 36-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on May 29, 2007. Claim 1 is amended; claims 2-6, 12 and 28-35 are cancelled; and claims 36-43 are newly added. Therefore, claims 1, 7-11, 13-27 and 36-43 are currently pending in this application.

2. Applicant's arguments filed on May 29, 2007 have been fully considered but they are not persuasive.

3. The rejection of claims 1, 7-11 and 13-27 as in the previous Office Action is respectfully maintained but updated to show the changes made by the amendment.

Claim Objections

4. Claim 13 is objected to because of the following informalities:

The phrase "data" in line 1 of claim 13 should be replaced with --data files-- to be consistent with claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 36-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification of the current application does not support the limitation "deleting sufficient data files that are larger than a predetermined threshold" of claims 36 and 40. In other words, no where in the specification it is described about deleting data files that are larger (in size) than a certain size (i.e. a predetermined threshold).

Furthermore, the subject matter of claims 37 and 41, i.e. having two threshold values, is also not properly described in the application as filed.

Claims 38 and 39 are also rejected for the same reason(s) as claim 36 as they further limit the claim 36.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the data store management system determines which of the data files to delete based on file size of the respective data file. However, according to dependent claims 8 and 9 which further limit claim 1, the data store management system applies a LRU or a FIFO algorithms to delete data from at least one of the accessed data storage locations. It is unclear how to select a file for deletion (i) based

on both file size and LRU algorithm according to claim 8; and (ii) based on both file size and FIFO algorithm according to claim 9?

Claims 10 and 11 recites the limitation "the pre-selected control levels" in line 1. There is insufficient antecedent basis for this limitation in these claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 7-9 and 13-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flanagin et al. (USPN: 7,017,105) hereinafter, Flanagin in view of Beresin et al. (USPN: 2004/0158829) hereinafter, Beresin.

As per claim 1, Flanagin teaches a system for managing memory space (i.e. the limited memory space of the wireless devices) in a mobile device (i.e. wireless mobile and other portable devices, such as PDAs and cellular phones), comprising:

- a plurality of data storage locations (i.e. locations within the limited memory space of the wireless devices);
- a plurality of software applications (i.e. software applications such as, an address book for keeping contact information such as names and addresses, a calendar for keeping schedules and important dates, an e-mail application for to send and receive electronic messages, an internet application for

accesses web-pages, and other services), each software application being operable to store data to a different data storage location (this limitation is *inherent* because each application has to be stored at a different storage location in order for it to be separately/individually executed/addressed) (e.g. see Col. 1, lines 16-24); and

- a data store management system (i.e. the data synchronizing system) operable to access and delete data files stored in the plurality of data storage locations (i.e. by using the filters, data stored in the plurality of storage locations identified as stale/old data and deleted) (e.g. see Col. 1, line 65 - Col. 2, line 4).

However, Flanagin does not specifically disclose about if insufficient memory space is available in one of the data storage locations, then the data store management system determines which of the data files to delete based on file size of the respective data files. Beresin, on the other hand, teaches that when the synchronization management agent (i.e. 112 in Fig. 1) determines that the local memory (i.e. 114 in Fig. 1) of the mobile terminal (i.e. 100 in Fig. 1) does not include enough free memory for storing the requested file, the synchronization management agent then determines which file(s) stored in the local memory of mobile terminal can be deleted in order to free memory for the requested file. The synchronization management agent selects file(s) which occupy memory of a size which, when aggregated with currently available memory, is sufficient to store the chosen application (e.g. see steps 408 and 410 in Fig. 4 and paragraph [0033]). In other words, Beresin does selects one or more data files to

delete based on the file size as claimed. Accordingly, it would have been obvious to one of ordinary skills in the art at the time of the current invention was made to implement the teachings of Beresin in the system taught by Flanagin so, when the local memory is full, instead of randomly selecting, the data location(s) is/are wisely selected for eviction, i.e. based on the file size. Therefore, instead of all data files only the enough data files are deleted to store the chosen file/application.

As per claim 7, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Beresin teaches that the data store management system applies a memory retention algorithm (i.e. the LFU algorithm) to delete data from at least one of the accessed data storage locations (e.g. see paragraph [0026]).

As per claims 8 and 9, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Beresin teaches that the data store management system applies a least-frequently-used (LFU) memory retention algorithm to delete data from at least one of the accessed data storage locations (e.g. see paragraph [0026]). Many different types of memory retention/replacement/retirement algorithms, such as least recently used/accessed (LRU), most recently used/accessed (MRU), least frequently/commonly used/accessed (LFU), most frequently/commonly used/accessed (MFU), first-in first-out (FIFO), last-in first-out (LIFO), round robin etc., are well-known and notorious old in the art. The memory retention/replacement/retirement algorithm is a system dependent feature. Since neither applicant nor specification disclose that changing the type of the memory

retention algorithm would change the system functionality or performance, therefore, any type of memory retention algorithms can be used for determining at least one of the accessed data storage locations for deletion. The common knowledge or well-known in the art statement is taken to be admitted prior art because applicant failed to traverse the examiner's assertion of official notice made in the previous Office Action (see MPEP 2144.03 (C)).

As per claim 13, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Beresin teaches that the data store management system deletes data from at least one of the accessed data storage locations in accordance with one or more pre-selected memory retention configurations (i.e. based on LFU data) (e.g. see paragraph [0026]).

As per claim 13, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Flanagin teaches that the data store management system deletes data from at least one of the accessed data storage locations in accordance with one or more pre-selected memory retention configurations (i.e. using the filters to exclude the data such as calendar information after the corresponding dates have passed, contact information that have changed/outdated) (e.g. see Col. 1, line 50 – Col. 2, line 4).

As per claim 14, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Flanagin teaches that the pre-selected memory retention configurations include a configuration that instructs the data store

management system not to delete data from a particular data storage location (i.e. not deleting appointment data from the server) (e.g. see Col. 1, lines 56-60).

As per claim 15, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Flanagin teaches that the pre-selected memory retention configurations include a configuration that instructs the data store management system to only delete expired data from a particular data storage location (i.e. using the filters to delete the expired data such as calendar information after the corresponding dates have passed, and contact information that have changed/outdated) (e.g. see Col. 1, line 50 – Col. 2, line 4).

. As per claim 16, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Beresin teaches that the pre-selected memory retention configurations include a configuration that instructs the data store management system to delete data from a particular data storage location in accordance with a pre-selected control level (i.e. deleting the LFU data) (e.g. see paragraph [0026]).

As per claim 17, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Beresin teaches that the pre-selected memory retention configurations include a configuration that instructs the data store management system to delete expired data (i.e. the data which are LFU) from a particular data storage location (i.e. from the local memory location on the mobile terminal) (e.g. see paragraph [0026]). Beresin further teaches that data is deleted from

the particular data storage location in accordance with a pre-selected control level (i.e. using the LFU algorithm) (e.g. see paragraph [0026]).

As per claims 18-26, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Flanagin teaches that wireless devices are used to manage data objects such as emails, contact information, calendar information, web pages, and the like (e.g. see Col. 3, lines 64-66). In other words, the plurality of data storage locations of wireless devices include a browser cache (for storing/caching web pages), a message store (for storing e-mails), an address book (for storing contact information), a browser bookmarks store (for storing useful web links/addresses), a calendar data store (for storing calendar information), an electronic messaging system (for storing e-mails), an Internet browser application (for accessing web pages), a calendar application (for accessing/using calendar information) and similarly a notes store for storing notes.

As per claim 27, the combination of Flanagin and Beresin teaches the claimed invention as described above and furthermore, Beresin teaches that data store management system deletes data from at least one of the accessed data storage locations to free a minimum amount of memory (i.e. enough free memory for storing the requested file) (e.g. see paragraph [0026]).

8. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flanagin in view of Beresin, further in view of "Automatic Removal of Old Calendar

Information from the PC", IBM Technical Disclosure Bulletin, November 1992, US, Vol. 35, issue 6, pgs. 412-413, hereinafter, IBM.

As per claim 10, the combination of Flanagin and Beresin teaches the claimed invention as described above, but both failed to clearly disclose that the pre-selected control levels are configured by a device user. IBM, however, discloses that it is up to the user to decide the retention period for data to be stored on the local storage space so (i) No storage is wasted on data that is older than the user cares about; and (ii) It allows the user to decide how much old data is needed (e.g. see paragraphs 6-8 on page 1). Accordingly, it would have been obvious to one of ordinary skills in the art at the time of the current invention was made to implement the teaching of IBM in the system taught by the combination of Flanagin and Beresin for the benefits recited above.

As per claim 11, the combination of Flanagin and Beresin teaches the claimed invention as described above, but both failed to clearly disclose that the pre-selected control levels identify one or more time periods during which the data store management system will not delete data from the accessed data storage locations. IBM, however, discloses that it is up to the user to decide the retention period for data to be stored on the local storage space (i.e. the time period during which the system will not delete the data) so It allows the user to decide how much old data is needed (e.g. see paragraphs 6-8 on page 1). Accordingly, it would have been obvious to one of ordinary skills in the art at the time of the current invention was made to implement the

teaching of IBM in the system taught by the combination of Flanagin and Beresin for the benefit recited above.

9. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flanagin in view of Arimilli et al. (USPN: 6,212,605) hereinafter, Arimilli.

As per claim 42, Flanagin teaches a method comprising: storing data files in memory (i.e. 212 in Fig. 3); deleting sufficient data in the memory to yield sufficient free memory space to store a received message, by deleting data files only if they meet a preselected criteria (i.e. whether the respective file has expired/stale data); and storing the received message in the free memory space (e.g. see Col. 1, lines 54-64). However, Flanagin does not teach about deleting data files only if they are not resident in the designated memory location. Arimiilli, on the other hand, teaches about avoiding a reserved block in the cache memory from eviction (e.g. see Col. 7, lines 14-37). Accordingly, it would have been obvious to one of ordinary skills in the art at the time of the current invention was made to implement the teachings of Arimilli in the method taught by Flanagin so the important data loss can be avoided by storing at the reserved data location(s).

As per claim 43, the combination of Flanagin and Arimilli teaches the claimed invention as described above and furthermore, Flanagin teaches that the preselected criteria is whether a respective file has expired data (i.e. stale calendar data) (e.g. see Col. 1, lines 54-64).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP§706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hetul Patel whose telephone number is 571-272-4184. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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